

# Features & Specifications

## 2016 DR-Z125L



### DR-Z125LL6

GY8: Champion Yellow  
No.2 / Solid Black

### Engine Features

- Compact 124cc 4-stroke, SOHC, single-cylinder, air-cooled engine provides strong low-to-mid range power delivery that can be easily handled.
- Precise digital CDI ignition system with an ignition-timing map tuned to optimize the engine's power characteristics.
- MIKUNI VM20SS carburetor contributes to excellent throttle response.
- Suzuki Composite Electrochemical Material (SCEM) - plated cylinder for durability, lightweight and superior heat transfer.
- Five-speed transmission with link-type gearshift system for precise operation and positive feel.
- Easy pull, rack & pinion manual clutch lets the rider control take-offs and power delivery.

### Chassis Features

- Lightweight, high rigidity steel pipe frame and rear beam-style swingarm are designed specifically to create a compact, fully-sized off road machine.
- Lightweight aluminum rims (19-inch front/16-inch rear) for reduced weight contributing to agile handling and improved suspension performance.
- The seat and bodywork design provides a seamless surface for easy maneuverability.
- Appropriate 32 inch seat height lets the bike fit a variety of riders.
- Strong braking performance provided by a lightweight front disc brake and rear drum brake.
- Telescopic front forks and link-type rear suspension provides long wheel travel and smooth, progressive action that creates an enjoyable, comfortable ride.
- The rear shock absorber spring preload is fully adjustable for a wide range of riding conditions and rider weight.
- Bright Suzuki Factory Yellow bodywork with matching race-inspired graphics.
- A lightweight plastic skid plate helps protect the bottom of the engine.

### Additional Features

- 6-month limited warranty
- For more details, please visit [www.suzukicycles.com](http://www.suzukicycles.com).

*Not available in California.*

# Specifications DR-125LL6

E-03: USA, E-33: California

## DIMENSIONS AND CURB MASS

Overall length.....	1885 mm (74.2 in)
Overall width.....	770 mm (30.3 in)
Overall height.....	1110 mm (43.7 in)
Wheelbase.....	1270 mm (50.0 in)
Ground clearance.....	290 mm (11.4 in)
Seat height.....	805 mm (32.0 in)
Curb mass.....	89 kg (196 lbs)

## ENGINE

Type.....	4-stroke, air-cooled, OHC
Number of cylinders.....	1
Bore.....	57.0 mm (2.244 in)
Stroke.....	48.8 mm (1.921 in)
Displacement.....	124 cm <sup>3</sup> (7.6 cu. in)
Compression ratio.....	9.5 : 1
Carburetor.....	MIKUNI VM20SS
Air cleaner.....	Polyurethane foam element
Starter system.....	Primary Kick
Lubrication system.....	Wet sump
Idle speed.....	1700 ± 100 r/min

## DRIVE TRAIN

Clutch.....	Wet multi-plate type
Transmission.....	5-speed constant mesh
Gearshift pattern.....	1-down, 4-up
Primary reduction ratio.....	3.470 (59/17)
Gear ratios, Low.....	3.000 (33/11)
2nd.....	1.857 (26/14)
3rd.....	1.368 (26/19)
4th.....	1.095 (23/21)
Top.....	0.923 (24/26)
Final reduction ratio.....	4.071 (57/14)
Drive chain.....	DID 428HG, 130 links

## CHASSIS

Front suspension.....	Telescopic, coil spring, oil damped
Rear suspension.....	Link type, coil spring, oil damped
Front suspension stroke.....	180 mm (7.1 in)
Rear wheel travel.....	170 mm (6.7 in)
Caster.....	27° 30'
Trail.....	99 mm (3.90 in)
Steering angle.....	45° (right & left)
Turning radius.....	2.0 m (6.6 ft)
Front brake.....	Disc brake
Rear brake.....	Drum brake
Front tire.....	70/100-19 42M, tube type
Rear tire.....	90/100-16 52M, tube type

## ELECTRICAL

Ignition type.....	Electronic ignition (CDI)
Ignition timing.....	13° B.T.D.C. at 1700 r/min
Spark plug.....	NGK DR8EA or DENSO X24ESR-U
Generator.....	Single-phase A.C. generator

## CAPACITIES

Fuel tank, including reserve.....	4.8 L (1.3/1.1 US/Imp gal)
reserve.....	1.1 L (0.3/0.3 US/Imp gal)
Engine oil, oil change.....	850 ml (0.9/0.7 US/Imp qt)
with filter change.....	950 ml (1.0/0.8 US/Imp qt)
overhaul.....	1100 ml (1.2/1.0 US/Imp qt)

# Service Data DR-125LL6

## E-03: USA, E-33: California

### VALVE + GUIDE

Unit: mm (in)

ITEM	STANDARD		LIMIT
Valve diam.	IN.	30 (1.2)	—
	EX.	26 (1.0)	—
Valve clearance (when cold)	IN.	0.08 – 0.13 (0.003 – 0.005)	—
	EX.	0.13 – 0.18 (0.005 – 0.007)	—
Valve guide to valve stem clearance	IN.	0.010 – 0.037 (0.0004 – 0.0015)	—
	EX.	0.030 – 0.057 (0.0012 – 0.0022)	—
Valve guide I.D.	IN. & EX.	5.500 – 5.512 (0.2165 – 0.2170)	—
Valve stem O.D.	IN.	5.475 – 5.490 (0.2156 – 0.2161)	—
	EX.	5.455 – 5.470 (0.2148 – 0.2154)	—
Valve stem deflection	IN. & EX.	—	0.35 (0.014)
Valve stem runout	IN. & EX.	—	0.05 (0.002)
Valve head thickness	IN. & EX.	—	0.5 (0.014)
Valve stem end length	IN. & EX.	—	2.5 (0.10)
Valve seat width	IN. & EX.	0.9 – 1.1 (0.035 – 0.043)	—
Valve head radial runout	IN. & EX.	—	0.03 (0.001)
Valve spring free length (IN. & EX.)	INNER	—	36.0 (1.42)
	OUTER	—	39.3 (1.55)
Valve spring tension (IN. & EX.)	INNER	76 – 90 N (7.8 – 9.2 kgf, 17.2 – 20.3 lbs) at length 32.5 mm (1.28 in)	—
	OUTER	186 – 219 N (18.9 – 22.3 kgf, 41.7 – 49.2 lbs) at length 36.0 mm (1.42 in)	—

## CAMSHAFT + CYLINDER HEAD

Unit: mm (in)

ITEM	STANDARD		LIMIT
Cam height	IN. & EX.	33.13 – 33.17 (1.304 – 1.306)	32.83 (1.29)
Camshaft journal oil clearance	IN. & EX.	0.032 – 0.066 (0.0013 – 0.0026)	0.150 (0.0059)
Camshaft journal holder I.D.	IN. & EX.	22.012 – 22.025 (0.8666 – 0.8671)	—
Camshaft journal O.D.	IN. & EX.	21.959 – 21.980 (0.8645 – 0.8654)	—
Camshaft runout	IN. & EX.	—	0.10 (0.004)
Rocker arm I.D.	IN. & EX.	12.000 – 12.018 (0.4724 – 0.4731)	—
Rocker arm shaft O.D.	IN. & EX.	11.977 – 11.995 (0.4715 – 0.4722)	—
Cylinder head distortion		—	0.05 (0.002)
Cylinder head cover distortion		—	0.05 (0.002)

## CYLINDER + PISTON + PISTON RING

Unit: mm (in)

ITEM	STANDARD		LIMIT
Compression pressure	1 200 – 1 600 kPa (12 – 16 kgf/cm <sup>2</sup> , 171 – 228 psi)		1 000 kPa (10 kgf/cm <sup>2</sup> , 142 psi)
Piston to cylinder clearance	0.020 – 0.030 (0.0008 – 0.0012)		0.120 (0.0047)
Cylinder bore	57.000 – 57.015 (2.2440 – 2.2447)		57.110 (2.2484)
Piston diam.	56.975 – 56.990 (2.2431 – 2.2437) Measure at 12 mm (0.5 in) from the skirt end.		56.880 (2.2394)
Cylinder distortion	—		0.05 (0.002)
Piston ring free end gap	1st	R	Approx. 7.0 (0.28)
	2nd	R	Approx. 8.5 (0.33)
Piston ring end gap	1st		0.10 – 0.25 (0.004 – 0.010)
	2nd		0.10 – 0.25 (0.004 – 0.010)
Piston ring to groove clearance	1st		—
	2nd		—
Piston ring groove width	1st		1.21 – 1.23 (0.047 – 0.048)
	2nd		1.21 – 1.23 (0.047 – 0.048)
	Oil		2.51 – 2.53 (0.099 – 0.100)

ITEM	STANDARD		LIMIT
Piston ring thickness	1st	1.175 – 1.190 (0.0463 – 0.0469)	—
	2nd	1.170 – 1.190 (0.0461 – 0.0469)	—
Piston pin bore	14.002 – 14.008 (0.5513 – 0.5515)		14.030 (0.5524)
Piston pin O.D.	13.994 – 14.002 (0.5509 – 0.5513)		13.980 (0.5504)

## CONROD + CRANKSHAFT

Unit: mm (in)

ITEM	STANDARD	LIMIT
Conrod small end I.D.	14.004 – 14.012 (0.5513 – 0.5517)	14.040 (0.5528)
Conrod deflection	—	3.0 (0.12)
Conrod big end side clearance	0.10 – 0.45 (0.004 – 0.018)	1.0 (0.04)
Conrod big end width	15.95 – 16.00 (0.628 – 0.630)	—
Crank web to web width	53.0 ± 0.1 (2.09 ± 0.004)	—
Crankshaft runout	—	0.08 (0.003)

## OIL PUMP

ITEM	STANDARD	LIMIT
Oil pressure (at 60°C, 140°F)	Above 15 kPa (0.15 kgf/cm <sup>2</sup> , 2.1 psi) Below 35 kPa (0.35 kgf/cm <sup>2</sup> , 4.9 psi) at 3 000 r/min	—

## CLUTCH

Unit: mm (in)

ITEM	STANDARD	LIMIT
Clutch lever play	10 – 15 (0.4 – 0.6)	—
Drive plate thickness	2.90 – 3.10 (0.114 – 0.122)	2.60 (0.102)
Drive plate claw width	11.8 – 12.0 (0.46 – 0.47)	11.0 (0.43)
Driven plate distortion	—	0.10 (0.004)
Clutch spring free length	32.6 (1.28)	31.0 (1.22)

## DRIVE TRAIN + DRIVE CHAIN

Unit: mm (in) Except ratio

ITEM		STANDARD	LIMIT
Primary reduction ratio		3.470 (59/17)	—
Final reduction ratio		4.071 (57/14) ; 1/14)	—
Gear ratios	Low	3.000 (33/11)	—
	2nd	1.857 (26/14)	—
	3rd	1.368 (26/19)	—
	4th	1.095 (23/21)	—
	Top	0.923 (24/26)	—
Shift fork to groove clearance		0.10 – 0.30 (0.004 – 0.012)	0.50 (0.02)
Shift fork groove width	No. 1	5.0 – 5.1 (0.196 – 0.201)	—
	No. 3	5.5 – 5.6 (0.217 – 0.224)	—
Shift fork thickness	No. 1	4.8 – 4.9 (0.189 – 0.193)	—
	No. 3	5.3 – 5.4 (0.209 – 0.213)	—
Countershaft length (Low to 2nd)		88.0 <sup>+0.1</sup> <sub>0</sub> (3.46 <sup>+0.004</sup> <sub>0</sub> )	—
Drive chain	Type	D.I.D. 428HG	—
	Links	130	—
	20-pitch length	—	259.0 (10.20)
Drive chain slack		35 – 45 (1.4 – 1.8)	—
Gearshift lever height		-5 – 5 (-0.2 – 0.2)	—

## CARBURETOR

ITEM		SPECIFICATION
Carburetor type		MIKUNI VM20SS
Bore size		20 mm (0.8 in)
I.D. No.		08G0
Idle r/min		1 700 ± 100 r/min
Float height		18.9 ± 1.0 mm (0.74 ± 0.04 in)
Main jet	(M.J.)	#102.5
Jet needle	(J.N.)	5HGM74-1
Needle jet	(N.J.)	N-6M
Pilot jet	(P.J.)	#17.5
Pilot screw	(P.S.)	PRE-SET (2 and 1/4 turns back)
Throttle cable play		2.0 – 4.0 mm (0.08 – 0.16 in)

## ELECTRICAL

ITEM	SPECIFICATION		NOTE
Spark plug	Type	DENSO: X24ESR-U NGK: DR8EA	
	Gap	0.6 – 0.8 mm (0.024 – 0.031 in)	
Spark performance	Over 8 mm (0.3 in) at 1 atm.		
Ignition coil resistance	Primary	0.1 – 0.8 Ω	W/BI – B/W
	Secondary	13 – 18 kΩ	Plug cap – W/BI
Generator coil resistance	Charging	13 – 22 Ω	Y – Y/R
	Pick-up coil	140 – 230 Ω	G – B/W
Pick-up coil peak voltage	More than 2.0 V		⊕: G, ⊖: B/W
Ignition coil primary peak voltage	More than 150 V		⊕: B/W, ⊖: W/BI

## BRAKE + WHEEL

Unit: mm (in)

ITEM		STANDARD/SPECIFICATION	LIMIT
Brake lever play		0.1 – 0.3 (0.004 – 0.012)	—
Rear brake pedal free travel		20 – 30 (0.8 – 1.2)	—
Rear brake pedal height		-10 – 0 (-0.4 – 0)	—
Brake drum I.D.	Rear	—	110.7 (4.36)
Brake disc thickness	Front	3.5 ± 0.2 (0.14 ± 0.008)	3.0 (0.12)
Brake disc runout	Front	—	0.30 (0.012)
Master cylinder bore	Front	11.000 – 11.043 (0.4331 – 0.4348)	—
Master cylinder piston diam.	Front	10.957 – 10.984 (0.4314 – 0.4324)	—
Brake caliper cylinder bore	Front	30.230 – 30.306 (1.1902 – 1.1931)	—
Brake caliper piston diam.	Front	30.150 – 30.200 (1.1870 – 1.1890)	—
Brake fluid type	Front	DOT 4	—
Wheel rim runout		Axial	— 2.0 (0.08)
		Radial	— 2.0 (0.08)
Wheel axle runout		Front	— 0.25 (0.010)
		Rear	— 0.25 (0.010)

ITEM		STANDARD/SPECIFICATION	LIMIT
Wheel rim size	Front	J19 × 1.40	—
	Rear	J16 × 1.60	—
Tire size	Front	70/100-19 42M	—
	Rear	90/100-16 52M	—
Tire tread depth	Front	—	4.0 (0.16)
	Rear	—	4.0 (0.16)

## SUSPENSION

Unit: mm (in)

ITEM	STANDARD/SPECIFICATION	LIMIT
Front fork stroke	180 (7.1)	—
Front fork spring free length	599.1 (23.59)	587 (23.1)
Front fork oil level	173 (6.8)	—
Front fork oil type	SUZUKI FORK OIL SS-08 (#10) or an equivalent fork oil	—
Front fork oil capacity (each leg)	172 ml (4.3/4.5 US/Imp oz)	—
Front fork inner tube O.D.	30 (1.2)	—
Rear shock absorber spring pre-set length	241.1 (9.49)	—
Rear wheel travel	170 (6.7)	—
Swingarm pivot shaft runout	—	0.6 (0.02)

## TIRE PRESSURE

COLD INFLATION TIRE PRESSURE	kPa	kgf/cm <sup>2</sup>	psi
FRONT	100	1.0	14
REAR	100	1.0	14



## FUEL + OIL

ITEM	SPECIFICATION	NOTE
Fuel type	Use only unleaded gasoline of at least 87 pump octane (R/2 + M/2) or 91 octane or higher rated by the research method. Gasoline containing MTBE (Methyl Tertiary Butyl Ether), less than 10% ethanol, or less than 5% methanol with appropriate cosolvents and corrosion inhibitor is permissible.	
Fuel tank capacity including reserve	4.8 L (1.3/1.1 US/lmp gal)	
reserve	1.1 L (0.3/0.3 US/lmp gal)	
Engine oil type	SAE 10W-40, API SF/SG or SH/SJ with JASO MA	
Engine oil capacity	Change 850 ml (0.9/0.7 US/lmp qt)	
	Filter change 950 ml (1.0/0.8 US/lmp qt)	
	Overhaul 1 100 ml (1.2/1.0 US/lmp qt)	

## TIGHTENING TORQUE ENGINE

ITEM	N·m	kgf-m	lbf-ft
Cylinder head cover bolt	10	1.0	7.0
Spark plug	11	1.1	8.0
Cylinder head bolt	Initial	10	7.0
	Final	27	19.5
Cylinder nut	10	1.0	7.0
Primary drive gear nut	50	5.0	36.0
Generator rotor nut	55	5.5	40.0
Clutch sleeve hub nut	50	5.0	36.0
Cam chain tension adjuster mounting bolt	10	1.0	7.0
Engine oil drain plug	28	2.8	20.5
Crankcase bolt	10	1.0	7.0
Engine mounting nut	40	4.0	29.0
Engine mounting bracket nut	40	4.0	29.0
Exhaust pipe bolt	23	2.3	16.5
Muffler connecting bolt	23	2.3	16.5
Muffler mounting bolt	23	2.3	16.5
Engine sprocket bolt	25	2.5	18.0
Fuel valve mounting bolt	4.4	0.44	3.0
Camshaft sprocket bolt	11	1.1	8.0
Camshaft tension adjuster lock nut	12	1.2	8.5

## CHASSIS

ITEM	N·m	kgf·m	lbf·ft
Front axle nut	49	4.9	35.5
Front fork cap bolt	23	2.3	16.5
Front fork damper rod bolt	20	2.0	14.5
Front fork lower clamp bolt	33	3.3	24.0
Front fork upper clamp bolt	29	2.9	21.0
Steering stem head nut	65	6.5	47.0
Handlebar clamp bolt	23	2.3	16.5
Front brake master cylinder mounting bolt	10	1.0	7.0
Front brake caliper mounting bolt	23	2.3	16.5
Front brake hose union bolt	23	2.3	16.5
Air bleeder valve	7.5	0.75	5.5
Brake disc mounting nut	8.5	0.85	6.0
Clutch lever holder mounting bolt	6.5	0.65	4.7
Front footrest bolt	55	5.5	40.0
Brake pedal boss nut/bolt	29	2.9	21.0
Swingarm pivot nut	65	6.5	47.0
Rear shock absorber mounting bolt/nut (Upper & Lower)	50	5.0	36.0
Rear cushion lever bolt (Front)	55	5.5	40.0
Rear cushion lever nut (Center)	80	8.0	58.0
Rear cushion rod nut	80	8.0	58.0
Rear axle nut	54	5.4	39.0
Rear sprocket mounting nut	27	2.7	19.5
Brake cam lever nut	7.7	0.77	5.5
Spork nipple	4.5	0.45	3.0
Side stand bolt	50	5.0	36.0
Side stand nut	55	5.5	40.0